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Facilitating the sharing and coordinated use of spatially referenced data in Delaware

**Meeting Summary**  
**Delaware Geographic Data Committee**  
**9:00 a.m., June 1, 2001**  
**House Hearing Room, Legislative Hall, Dover**

**Attendance List:\***

Michael Ward – Kent County  
David Beattie – City of Wilmington  
Lillian Wang – Delaware Geological Survey  
Dave Gula – Delaware Transit Authority  
Sandy Schenck – Delaware Geological  
Survey  
George Yocher – DPH  
Rick Rutter – DEDO  
Ann Jeffers – US Census  
Debbie Pfeil – Town of Georgetown  
Kevin Wright – Del. Insurance Department  
Jeff Berstrom – City of New Castle  
Dennis Murphy – DNREC  
Dan Blevins – WILMAPCO  
Bernie Yocabucci – WILMAPCO  
Dave Saladino – WILMAPCO  
John Callahan – UD/RDMS  
Lyn Anderson – DOL  
Mary Harper – Historic Preservation  
Bob Seaberg – OIS

Greg Brivic – US Census  
Robert Jordan – DGS  
Mark DeMulder – USGS  
Vern Svatos – University of Delaware  
Bill Press – Gannett Fleming/Geo Decisions  
Charles Canby – DABC - Public Safety  
Debbie Sullivan – DNREC  
Mike Mahaffie – Office of State Planning  
Coordination  
Dorothy Morris – Office of State Planning  
Coordination  
Mary Cannon – Kids  
Michael Chambers – USGS  
Ron Matzner – FGDC  
Vince Rucinski – DelDOT  
James Thomas – DelDOT  
Dennis Norwood – Sussex County Mapping  
and Addressing  
Dave Gula – DTC

**Welcome and Introductions**

Mike Mahaffie began the meeting by going over the agenda and asking each person present to introduce themselves to the group.

**Information Updates**

*Topo/Framework Pilot Project*

Mike Mahaffie explained that the objective of this project is to find a way to integrate data from the Delaware Spatial Data Framework with DLG data from the USGS topographic map series. He noted that Delaware has a good framework layer that should be used to update the USGS data set.

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\* This list is based on the sign-in sheet filled in at the meeting. As always, we may have misread a name or someone may have missed the sign-in sheet. If you have any additions or deletions to suggest, please e-mail Mike Mahaffie at [mmahaffie@state.de.us](mailto:mmahaffie@state.de.us).

Mike stated that the DGDC, DGC, and the University of Delaware's Research Data Management Services (RDMS) are working with the USGS to develop an on-line "collaboratory" designed to identify and resolve issues related to combining the data. The collaboratory will be called "The USGS/Delaware Framework DataMIL", where "DataMIL" is an acronym for "Data Mapping and Integration Laboratory."

Debbie Sullivan stated that the Whole Basin Management teams have checked the streams in the Piedmont area and mapped every 1,000 feet but their points don't line up with the USGS data. She asked if Mike wanted the point data. Mike stated that he did.

Sandy Schenk noted that Delaware's framework data is at a scale of 1:24,000 and that we need to make sure that the Delaware data and the USGS data line up. He further stated that the USGS is looking at a process to update the topo series.

#### *Delaware GIS 2002 Conference Update*

Mike Mahaffie stated that the next GIS conference would be in the spring of 2002, probably in March. Mike asked if there were any volunteers for the GIS conference committee. Based on reaction at the meeting and on subsequent e-mails, the make-up of the Conference Committee is as follows:

Mike Mahaffie	Sandy Schenck
John Callahan	Lyn Anderson
Tina Callahan	Nicole Minni
Vern Svatos	

Any others interested in serving on this committee should contact Mike Mahaffie, at [mmahaffie@state.de.us](mailto:mmahaffie@state.de.us).

#### *DelDOT Centerline Data*

Vince Rucinski stated that the data is complete and that James Thomas from his office was working on adding metadata that can be downloaded when the data is downloaded. James is researching metadata tools. Mike Mahaffie asked that Vince post notices on the listserv as updates are completed.

#### *Sussex E-911 Project*

Dennis Norwood stated that Sussex County has entered into negotiations to complete the re-addressing of Sussex County. His office (Mapping and Addressing) is taking over the project from 3DI, which was removed from the project by Sussex County Council. Dennis said that his staff will focus on collecting data. He noted that a lack of data from the USPS has been a problem so now staff will need to begin to do field work. He said it would take more than a year to complete.

#### *Orthos*

Mike Mahaffie stated that he is optimistic right now that money will be found to update the orthophotography; however he stated that it will be funded by various departments working together. He said that he does not expect the FY02 budget to contain a line item to fund the entire project.

## **EPA Smart Growth Index Model**

Dave Saladino and Dan Blevins, of WILMAPCO, gave a demonstration of a Smart Growth Index modeling tool developed by the EPA for use in community planning. He stated that it can look at the current situation or it can forecast out 20 years and is being tested by WILMAPCO with Wilmington, as a tool to facilitate brownfield redevelopment. The Model is based on GIS technology and depends on accurate framework data.

Dave stated that they used the 1997 land use/land cover data to begin and then combined it with several data sets including transportation, employment, housing, etc. The next step was to update some of the outdated information and then set up a model. He stated that this program is part of a pilot program so they are still working out some of the glitches but overall it has worked well.

Sandy Schenck asked what the report was supposed to do. Dave stated that it shows what an area has and what it needs as far as employment and services. Sandy asked what other states are doing this pilot program. Dave stated that each region received two and that the other state in this area is Maryland and they are using it as a conservation tool.

Mike Mahaffie asked that they keep notes on the data issues that they experience with the data sets.

## **The National Map - ReVision 2010**

Mark Demulder of the USGS made a presentation (attached) on The National Map, a “visioning” process by USGS. He explained that he was making this presentation because he was seeking comments on the program.

Mark noted that the USGS had chartered a study to determine “how to put truly current information into the hands of our customers... in a cost effective way.” He stated that their vision for the year 2010 will be to provide the Nation with current, accurate, and nationally consistent basic spatial data, including digital data and derived topographic maps. He noted that the revision was begun because many of the comments they received were about the age of their data – the first series of maps took 55 years to complete.

With the help of several partners, the USGS hopes to create a national map that is a seamless, continually maintained, nationally consistent set of basic spatial data. He stated that the national map will support integrating and sharing data sets.

Mark stated that some of the characteristics of the map are that it is seamless, consistently classified, it will have variable resolutions, it will integrate among the themes of the data, it will be current within 7 days and it will be variably positioned – it will be accurate without cartographic variables.

Mark said that the USGS is looking for volunteers to keep the map updated and that once the project is complete there will be a website so the people would have around the clock access to any geographic area. He further noted that the USGS would continue to make paper maps.

Mark stated that the USGS would be taking comments through June and the information can be reviewed or comments can be given at <http://nationalmap.usgs.gov/>. Mike Mahaffie stated that he would also take comments and pass them on to the USGS.

## **I-Teams**

Ron Matzner, of the FGDC, gave a presentation (attached) on the issue of creating an I-Team. He stated that this idea came from the Federal OMB and is based on the desire to make federal agencies, State agencies and local partners collaborate on data issues.

Ron stated that an I-Team is made up of three federal teams, the Federal I-Team, the Technical Advisory Team and the Financial Solutions Team that work in conjunction with local I-Teams.

Ron stated the responsibilities of the State I-Team would include implementation of the new Framework “paradigm,” public/private partnerships, developing and testing standards, guiding federal actions, and working with the Federal Geographic Data Committee.

The Federal Partners Team will be made up of senior officials from key federal agencies and will focus on federal efforts and coordinate the I-teams.

The Financial Solutions Team would address mismatches between the need for long term capital funding and reliance on short term funding. They will also explore intergovernmental and public/private financing options. This team would also help explain to legislators the benefit of aligning investments and explore interagency and crosscutting mechanisms.

The Technical Advisory Group will be a resource for the I-Teams and will help solve common challenges. This group would be open to all vendors and would keep all partners informed of crosscutting and innovative solutions. They would assist I-Teams in developing and testing new products and solutions and they would transfer knowledge of how to build interoperable networks and systems.

Ron stated that his e-mail address was rmatzner@FDGC.gov if any one had any questions or comments. Mike Mahaffie stated that he has been in touch with the Governor's office and has sent them a copy of a proposed Executive Order to establish an I-Team for Delaware.

## **Wrap up**

Vince Rucinski stated that DelDOT is still looking for money for a project to establish a central address geocoding system and address/point database.

Sandy Schenck stated that the next SMAC meeting would be on July 13 in the same room.

Mike Mahaffie stated that the next DGDC would be somewhere in Sussex County on August 31, 2001. He noted that that date, which is the Friday before Labor Day, might have to be changed.

With no further business, the meeting adjourned at approximately 11:45 a.m.





# **The National Map reVision 2010**

## *A plan for the National Mapping Program*

U.S. Department of the Interior  
U.S. Geological Survey





# reVision 2010

*“I am committed to a dramatic improvement in our revision program as one of the major components of a healthy and scientifically sound geographic discipline.”*

**Barbara Ryan**  
**Associate Director for Geography**  
**U.S. Geological Survey**  
**December 22, 2000**





# The reVision 2010 Team

**Mark DeMulder -- Team Lead**

**Lynn Bjorklund**

**Michael Domaratz**

**Charles Ogrosky**

**Stanley Wilds**

**Kenneth Boyko**

**George Lee**

**Craig Skalet**



# Is There a Need for National Maps and Data?

## Customer comments ...

**“Many topographic maps are woefully outdated ...”**

**“Overall excellent service, wish maps were more recent (~24 years old) ...”**

**“I was very surprised that revisions were last done in 1978.”**

**“I expected more updated maps.”**

## URISA conference feedback ...

**“The worst criticism we (USGS) had to face was the lack of a good update policy ...”**





# Inspiration



*“ ... put truly current information into the hands of our customers, and ... do this in a cost effective way by the year 2010.”* -- Barb Ryan





# reVision 2010: A Plan for The National Map

## The National Map:

- Will be a *seamless, continually maintained, nationally consistent* set of basic spatial data
- Will *underpin Federal activities*, and those of other public and private organizations
- Will support *integrating, sharing, and using* spatial data *easily and consistently*



# The National Map: Data Content

- **Orthorectified imagery**
- **Land characterization**
- **Elevation**
- **Vector layers:**
  - **Transportation**
  - **Hydrography**
  - **Structures**
  - **Boundaries**
- **Geographic names**



# The National Map: Data Characteristics

- **Seamless**
- **Consistently classified**
- **Variable resolution, completeness**
- **Consistency and integration among themes of data**
- **Current to within seven days**
- **Variable positional accuracy without cartographic offsets**



# The National Map: Operations

- **Build initial version from best available data**
- **Improve throughout decade - shift to maintaining currentness**
- **Updates from:**
  - **Local governments, private industry, and others**
  - **Local trained or certified volunteers**
  - **Imagery**
- **Networked, distributed collection of databases**
- **Feedback from users**



# **The National Map: Access and Use**

- **Around-the-clock Internet access**
- **User-specified combinations of data and geographic area**
- **Public domain, public access**
- **Means of accessing and using, for example:**
  - **USGS scientific studies**
  - **Geodetic control**
  - **Cadastral information**
  - **Soils**
  - **Socioeconomic data**
- **Paper topographic maps and digital data from The National Map**



## Organization: USGS Roles

- **Guarantor of national data completeness**
- **Owner and organizer responsible for awareness, availability, and utility**
- **Catalyst and collaborator for creating and stimulating data partnerships**
- **Integrator of data from other participants**
- **Data producer when no other source exists**



## Organization: Partners' Roles

- **Federal:** identify needs and collaborate on data
- **State and Regional:** coordinate consortia, identify changes and provide updates, and collaborate on data
- **Private Industry:** provide tools, open standards, and data
- **Academia:** conduct research
- **Volunteers:** identify changes and provide updates



## **Next Steps: Wider Review**

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- **Identify key advantages and deficiencies**
- **Revise and add clarity to the report**
- **Develop priorities and timelines**
- **Identify topics that require further study**
- **Develop new business model**



## **Next Steps: Align USGS to Vision**

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- **Align current programs to vision**
- **Identify needed changes in current business practices**
- **Identify required workforce characteristics**
- **Evaluate data holdings to assess their currentness**
- **Determine information content to be retained**
- **Pilot area maintenance office concept**



# **Next Steps: Forge Relationships**

- **Assess and emulate similar processes used by other organizations**
- **Evaluate other organizations' data**
- **Understand other Federal agency needs**
- **Conduct pilots with others**
- **Support university research**
- **Influence private sector technology development**
- **Assess roles for volunteers**
- **Build support for a National Cooperative Mapping Act**



# **I-Teams**

## **Implementing A New Paradigm**



**Ronald Matzner**

**Coordinator**

**I-Team Geospatial Data Initiative**



# I-Team Initiative

- The Next Phase of Efforts to Build NSDI
- A result of The OMB Information Initiative
- A Joint Project
  - FGDC
  - OMB
  - Council for Excellence in Government
  - Urban Logic
  - TIE
  - Other Strategic Partners

# What Did We Learn?

- Robust Technology (Interoperability and Open standards) is Making It Easier to Share Data
- NSDI Will Be a Key Component of E-Government and E-Commerce
- Much work still needed on Standards
- The Barriers Are Institutional and Financial
- **Leadership is Crucial**
- **It's Time To Act Now!!**



# A NEW PARADIGM

- Build NSDI From Bottom Up
- Create Public/Private Partnerships
- Share Data Collections
- Align Spatial Infrastructure Investments
- Capture Economies of Scale
- Allocate Costs Fairly
- Pool and Leverage Investments



# Nested Responsibilities

- Data Development and Stewardship by the Most Appropriate Partner
- Accuracy and Scale Needed by Local Jurisdictions
- Partners Access Data at Needed Accuracy

# Role Reengineering

- Rethink Federal Role
- Insufficient Resources to Collect Data at Scale Needed by Cities, Counties and States
- Facilitate Sharing of Data Among Public and Private Partners
- Don't Dictate, Be a Resource
- Let NSDI Develop Bottom-Up
- Rethink Private Sector Role and all other Levels of Government



# COMMON INVESTMENT CRITERIA

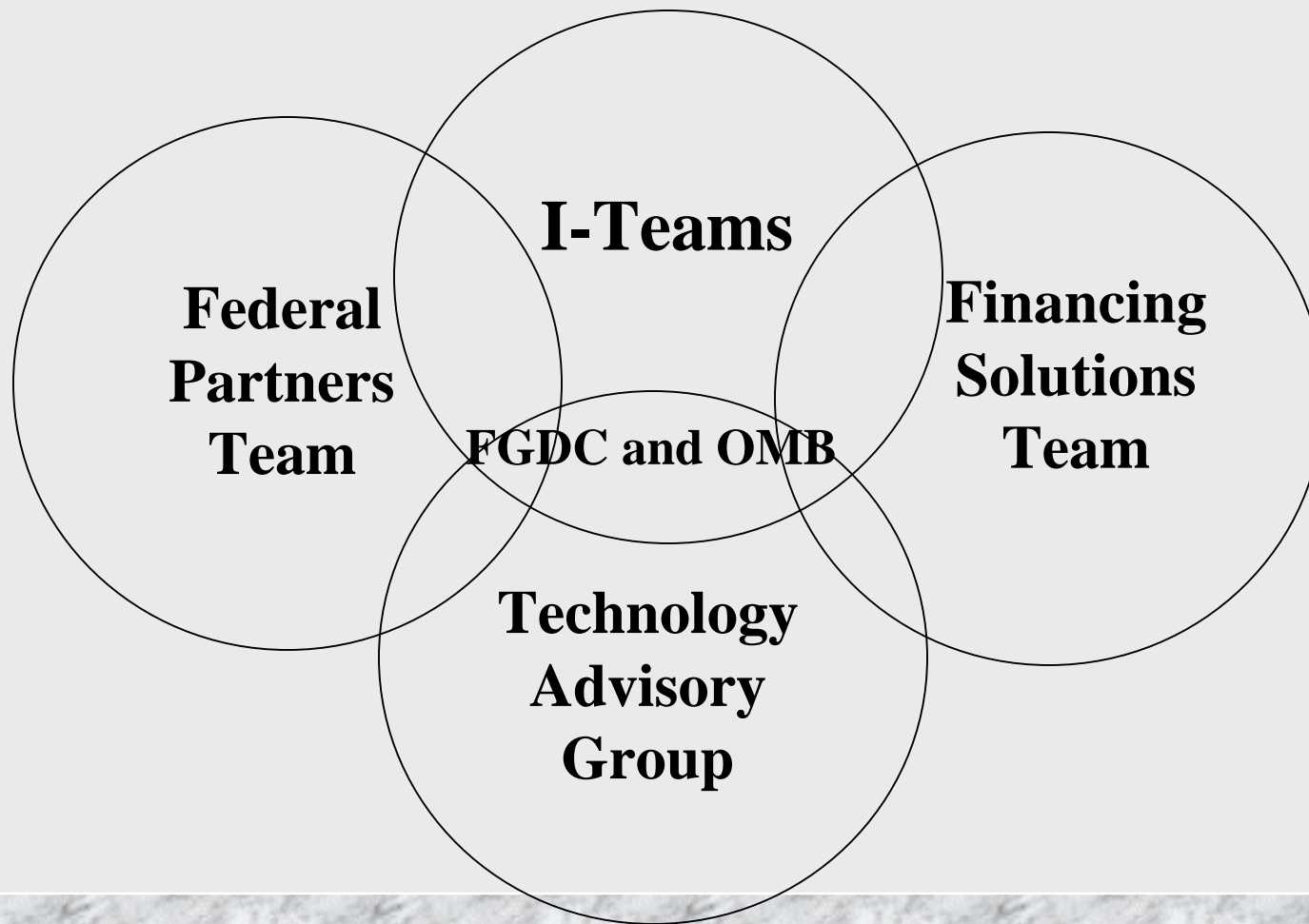
- Common Criteria For Spatial Infrastructure Investments
- Create Data To Accepted Attribution and Automation Standards
- Interoperability
- Create and Maintain Metadata
- Public Access
- Privacy, Security and Other Social Goals

# Burning Issues

- Emergency Management
- Law Enforcement - Anti-Terrorism
- E-911
- Environmental Monitoring
- Economic Development and Planning
- Disease Control
- Tax Assessment
- Smart Growth



# Implementation Strategy



# WHAT IS AN I-TEAM

- An I-Team is Partnership to Implement a Portion of the NSDI
- The essence of an I-Team is Multi-Sector Participation - Get Everyone in the Same Room
  - Federal
    - Academia
  - Local
    - Military
  - Tribal
    - Wireless Industry
  - Utilities
    - Insurance Industry
  - Engineers
    - Surveyors



# I-TEAMS

- Collaborative, Consensus Building, Empowering, Open, Flexible, Unifying
- Participate Because It Is In Your Self-Interest To Do So
- Share With and Leverage Work of All Other I-Teams On I-Team Web Site Where Everything Will Be Posted
- Be Part of a Movement to Build Bridges to Policy Makers and Break Down Chinese Walls

# HOW TO BEGIN

- Start With Existing Collaborations and Expand As Needed
- Choose a Coordinator
- Convene Multi-Sector Participants
- Agree on the Process
- Submit Short Description of Your I-Process to FGDC
  - Who, Why, When, How



# WHAT IS AN I-PLAN

- I-Plan is a Strategic Tool and Output of Process.
- A Strategic Plan Developed by State Alone is Not an I-Plan
- I-Plan Will Evolve from Your I-Process
- Use Utah I-Plan As Template for Use Externally to Help Address Financial and Institutional Barriers
- Submit Drafts and Fill In As You Go
- Complete I-Plan As Soon As You Can

# Developing Your I-Plan

- Start To Work On Your I-Plan
- Begin With Framework Layers or Application Themes
- Conduct Needs Analysis
- Consider Next Generation of Framework and Future Business Processes
- Determine by Consensus Scale, Resolution, Core Data Requirements
- Conduct Inventory Of Data Sets



# Developing Your I-Plan

- Identify Data Gaps
- Identify Opportunities for Collaboration
- Address Data Gaps Cooperatively
- Decide Who Can Best Collect Data
- Decide Who Can Best Maintain It

# Developing Your I-Plan

- How Do We Fund It?
- Estimate Costs and Prepare Budget
- Include Costs of Data Migration
- Weigh Costs and Benefits At Different Scales and Resolutions
- Align Resources of Partners
- Allocate Resources Equitably



# Developing Your I-Plan

- Identify Partners' Responsibilities
- Determine Core Data Requirements and Attributes for Integration Layer (State and Federal Needs)
- Provide Incremental Milestones
- Prepare and Submit I-Plan

# Standards

- Develop, Test and Use Standards Arising By Consensus From I-Process
- Study Data Models of Each Partner
- Create an I-Team Data Model
- Develop process to Create Seamless I-Team Data Layers
- Implement I-Team Data Model and Meta Data



# Standards

- Agree On I-Team Data Content Standards
- Develop Nested Set of Attribute Standards So Data Can Be Integrated Horizontally and Vertically
- Aggregate With Other I-Teams
- Submit to FGDC

# I-Teams At Work

## ● Working on Plans

- Arizona
- Florida
- Metro New York
- Maryland
- Montana
- North Carolina
- Texas
- Utah



# I-Teams At Work

- Mid-Atlantic LULC I-Team (8 states)
- South Florida Environmental Monitoring

# I-Teams Ready To Start

## ● Constituting Themselves

- Colorado
- Colorado Plateau
- Nebraska
- New Mexico



# I-Teams This Year

## ● Soon

- Arkansas
- Hawaii
- Indiana
- Michigan

## ● They Say They Will Do It

- Illinois
- Ohio
- Virginia
- Wyoming



# **I-Teams This Year**

DELAWARE??



# Challenges

- Choosing Participants
- Getting Full Support of Necessary Partners
- Administrative Costs of I-Team
- Availability of Staff and Resources
- Timing Gap Between Costs and Benefits
- Its Hard To Change Behavior
- Private Sector Proprietary Interests
- Turf and Control Issues
- Achieving Consensus
- Coordinating With Other I-Teams



# **I-Teams At Work**



**IMPLEMENT YOUR I-PLAN**



# Federal Partners Team

- Senior Officials From Key Federal Agencies, OMB and FGDC
- Focus Federal Agency Efforts
- Respond to & Coordinate with I-Team
- Energize Framework Development
- Appoint Federal Champions
- Work Together To Align Investments

# Financing Solutions Team

- Explore How to Align Investments to Make Better Use of Existing Resources (Appropriations and Procurements)
- Build Business Case to Support Alignment of Resources and To Justify Additional Resources and Other Funding Options for I-Teams
- Explore other intergovernmental and public-private financing options
- Help Explain to Legislative and Executive Branches the Benefits of Aligning Investments



# Financing Solutions Team

- Explore New Funding Options
- Address Mismatch Between
  - Need For Long Term Capital Financing
  - Current Reliance On Short Term Funding
- Suggest Sustainable Capital Financing Options
  - Infrastructure Bonds
  - Revolving Funds
  - Government Guaranteed Debentures

# Financing Solutions Team

## **-Electronic Meeting Support and Online Conferencing-**

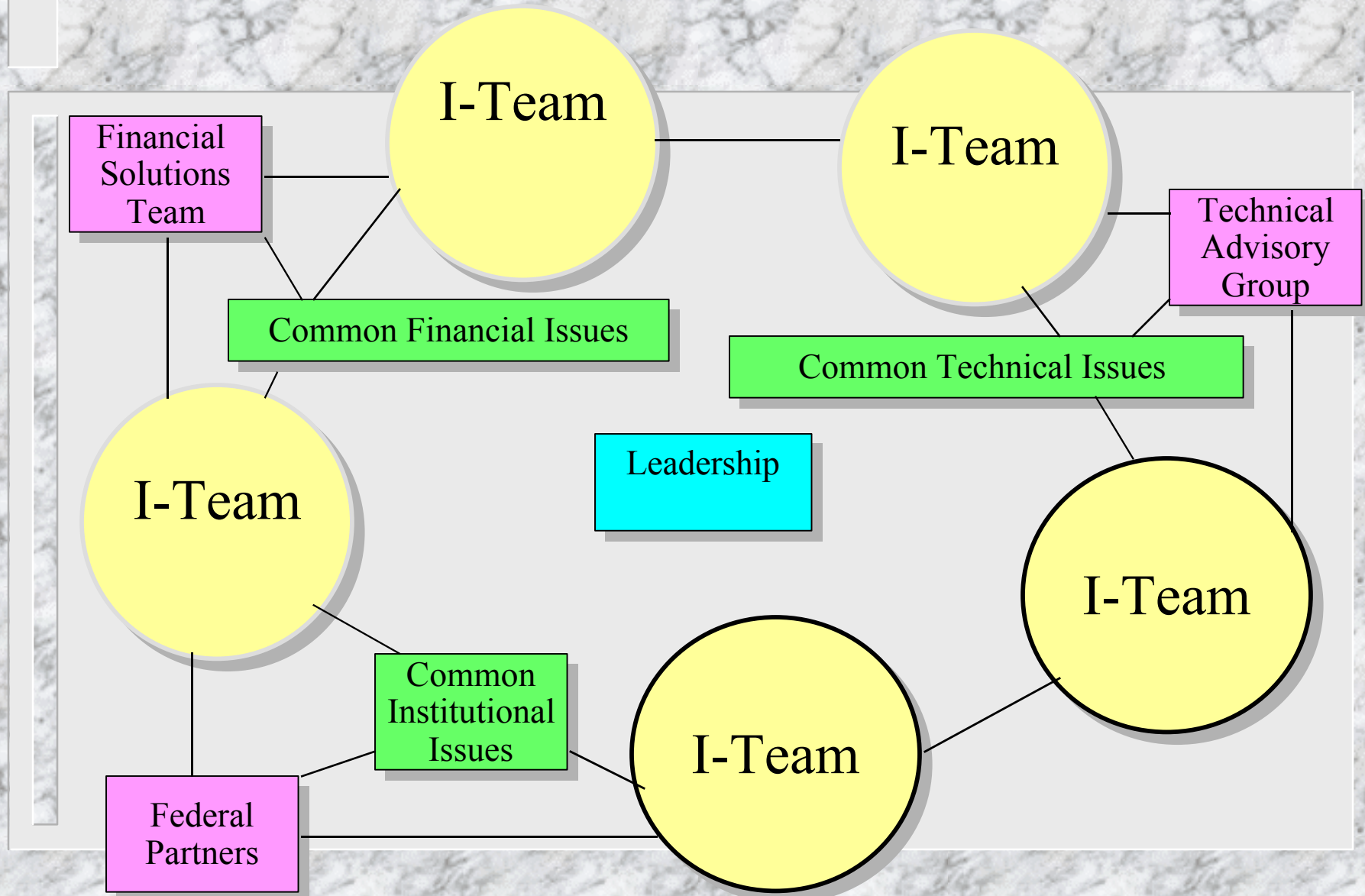
- Federal Agency CFOs
- I-Teams
- Local and State Governments
- Congress
- Academia
- NGOs
- Consultants
- Bond Underwriters
- Bond Counsel
- Public Finance Advisors
- Corporate Finance Specialists
- Securitization Counsel
- Venture Capitalists



# Technology Advisory Group

- A Resource for I-Teams
- Technology Neutral; Open to All Vendors
- Solve Common Technology Challenges
- Keep I-Teams & Federal Partners Informed of Cross-Cutting and Innovative Solutions
- Transfer Knowledge of How to Build Interoperable Networks and Systems
- I-Teams Drive Development and Testing of New Products and Solutions, and State of the Art Technology

# Leverage For All Partners





# WHAT IS DIFFERENT?

- Better Chance For Success Than Prior Efforts
- The Time Is Ripe For a Renaissance in Thinking About the Role of Spatial Data
- I-Teams are Locally and State Driven, Not Federal
- I-Teams Reflect a Change From Mandates to Incentives
- I-Teams Develop NSDI Out of Regular Work Flow

# WHAT IS DIFFERENT?

- You Take control and Direct the Show
- I-Teams are Interdependent and Maximize Leverage
- I-Teams Address the Most Intransigent Problems - Financial and Institutional Barriers
- You Have a Federal Champion Working Full Time For You Where It Counts Most - At the Nexus of OMB and Agencies



# WHAT IS DIFFERENT?

- Aligns Existing Resources to Make Better Use of What We Have
- Builds Business Case for Public Sector Resources and Private Sector Financing
- Has the Potential to Mobilize the User Community and Build a Broad-based Grass Roots Coalition for More Resources
- Focuses Attention on GIS as a Mainstream Foundation for e-business, e-government, and Digital Democracy

# Next Steps For Project Leaders

- Constitute Federal Partners
- Constitute Financing Solutions Team (FST) and convene First Meeting
- Design and Activate Web Site With Collaborative Meeting and Drafting Ability
- Encourage Agencies to Appoint Champions
- Meet With Federal Partners to Align Efforts and Resources
- Determine I-Team TAG Relationship



# Reasons Not To Do It

NONE



# Reasons To Be An I-Team

- Improve Operations and Services
- Improve Decision Making
- Be More Responsive to Constituents
- Be More Accountable
- Improve Customer Service
- Reduce Costs
- Do More With Less
- Gain Productivity

# More Reasons To Do It

- Compare Risks (Small) to Rewards (Big!!)
- Reduce Technology Risk
- Streamline Procurement Process
- Build Credibility with Budget Departments
- Reduce the Stuff You Hate To Do
- Spend More Time Doing What You Love
- Increase resources
- Save lots of money
- Increase Your Credibility

# Still More Reasons To Do It

- Build a Bridge to Policy Makers
- Be Coherently Understood in Washington
- Use Federal Champions
- Access Senior Policy and Program Officials Quickly and Directly
- Engage Federal Government and Private Sector Most Effectively in Support of Local Efforts





# **The I-Team Initiative**

SHARE THE VISION

YOU CAN'T HAVE E-GOV  
WITHOUT G-GOV